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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,926	03/02/2004	Hong Hocheng	04130-UPS	3831

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LIN & ASSOCIATES INTELLECTUAL PROPERTY
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EXAMINER	
LUK, EMMANUEL S	
ART UNIT	**PAPER NUMBER**
1722	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/791,926	HOCHENG ET AL.	
	Examiner	Art Unit	
	Emmanuel S. Luk	1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 4, 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woodmansee (2001/0022406) in view of Yang (2004/0238821) and Eppich (6769897).

Woodmansee teaches the use of touch sensors located in pads 14 that are connected via a signal run 20 (cables) from the mold 30 to a detection device 72. The touch sensor structure are described in paragraphs [0028] to [0033] ranging from compliant sheet material 18 to flat strain gauge pad 80. As shown in Figure 11, the signal of the sensor is detected and compared on a touch sensor monitor 38 that would interpret the signal and control the movement of the mold closure 30 based on the interpreted signal [0024].

Woodmansee fails to teach an electrostatic plate capacitor with its detection device and that the monitoring device would selectively shut down the system.

Eppich teaches the monitoring of force and pressure for a molding machine having a sensor 5 for measuring the deformation of a machine part. The deformation is monitored and the procedure is terminated when the pressure exceeds an amount (c. 1, l. 5-19; c. 2, l. 40-45). Woodmansee teaches the system would be controlled based upon the signal, therefore it would have been obvious for one of ordinary skill in the art to modify Woodmansee with the monitoring device to shut down the system based upon the detected signal since it is still controlling the movement of the system.

Yang teaches a pressure sensor having a plate capacitor with electrodes and a diaphragm functioning as another electrode (see entire reference). It would have been obvious for one ordinary skill in the art to modify Woodmansee with the pressure sensor

taught by Yang as an alternative pressure sensor because it has a low production cost [0009].

5. Claims 5, 6, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woodmansee (2001/0022406) in view of Yang (2004/0238821) and Eppich (6769897) as applied to claim 1 above, and further in view of Reichstein (2004/0009252).

Woodmansee, Yang, and Eppich fail to teach the wireless transmission of the signals and analog and digital conversions.

Reichstein teaches molding machines that have wireless communication via antennas 9 to machine controls and a signal converter 8, 8' [0017 and 0018].

It would have been obvious for one of ordinary skill in the art to modify Woodmansee, as modified by Yang and Eppich, with a wireless transmission device as taught by Reichstein because it would resolve problems caused by hardware connections (cable connections) between components and by removing the need to take into account for positions of cables and need for provisions of a trailing cable installation [0008].

6. Claims 2, 3, and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woodmansee (2001/0022406) in view of Yang (2004/0238821) and Eppich (6769897) and Reichstein (2004/0009252) and Chou (5772905).

Woodmansee teaches the use of touch sensors located in pads 14 that are connected via a signal run 20 (cables) from the mold 30 to a detection device 72. The touch sensor structure are described in paragraphs [0028] to [0033] ranging from compliant sheet material 18 to flat strain gauge pad 80. As shown in Figure 11, the signal of the sensor is detected and compared on a touch sensor monitor 38 that would interpret the signal and control the movement of the mold closure 30 based on the interpreted signal [0024].

Woodmansee fails to teach an electrostatic plate capacitor with its detection device and that the monitoring device would selectively shut down the system, a digital/analog converter, and nano-imprint patterns.

Eppich teaches the monitoring of force and pressure for a molding machine having a sensor 5 for measuring the deformation of a machine part. The deformation is monitored and the procedure is terminated when the pressure exceeds an amount (c. 1, l. 5-19; c. 2, l. 40-45). Woodmansee teaches the system would be controlled based upon the signal, therefore it would have been obvious for one of ordinary skill in the art to modify Woodmansee with the monitoring device to shut down the system based upon the detected signal since it is still controlling the movement of the system.

Yang teaches a pressure sensor having a plate capacitor with electrodes and a diaphragm functioning as another electrode (see entire reference). It would have been obvious for one ordinary skill in the art to modify Woodmansee with the pressure sensor taught by Yang as an alternative pressure sensor because it has a low production cost [0009]. Thus, one of ordinary skill in the art could replace the sensors taught in

Woodmansee with the one taught by Yang in an apparatus or process for detecting the deformation in a mold part.

Reichstein teaches molding machines that have wireless communication via antennas 9 to machine controls and a signal converter 8, 8' [0017 and 0018].

It would have been obvious for one of ordinary skill in the art to modify Woodmansee with a wireless transmission device as taught by Reichstein because it would resolve problems caused by hardware connections (cable connections) between components and by removing the need to take into account for positions of cables and need for provisions of a trailing cable installation [0008].

Chou teaches nanoimprint lithography and it would have been obvious for one of ordinary skill in the art to modify Woodmansee with a nanoimprint patterns upon the mold as taught bye Chou for creating ultra-fine patterns.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Niewels 2005/0236725
- Fueller 2005/0084557
- Nishimura 2005/0003036
- Lee 2003/0209817
- Tartagni 2002/0097059
- Watkins 5472331

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel S. Luk whose telephone number is (571) 272-1134. The examiner can normally be reached on Monday-Fridays from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra N. Gupta can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EL

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